Bhavesh Kukreja

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Education

University of Mumbai – Thadomal Shahani Engineering College Mumbai, India
Bachelor of Engineering in Computer Engineering (CGPA: 9.25/10.0) *Aug. 2023 – June 2027*

Experience

Full Stack Engineering Intern, *Zobyt* June 2026 – Aug. 2026
- Shipped an e-commerce ordering flow in **React** and **FastAPI** with checkout, payments, and order tracking
- Integrated **Razorpay** payments with idempotent webhooks and a refund state machine to prevent double charges
- Implemented a **Razorpay** subscriptions state machine with a daily sweep generating dated orders
- Built signed **HMAC** vendor status pages over **WhatsApp**, paired with an automated stale order ops alert sweep

Backend Engineering Intern, *Zobyt* Dec. 2025 – Feb. 2026
- Developed a newsletter scheduling API in **FastAPI** with recurring tasks, user rate limits, and error rollback
- Reduced a data sync script's runtime by **11x**, by fixing **N+1 API calls** with metadata pre-fetching
- Resolved a **PostgreSQL** connection leak by refactoring the application's database session handling
- Fixed a **serialization bug** that bypassed the configured 3 per day rate limit, restoring enforcement

Projects

Rexus | *FastAPI, React, Redis, PostgreSQL, Docker* | GitHub | Video Demo
- Developed an API Gateway in **FastAPI** with key authentication, response caching, and rate limiting
- Built a distributed sliding window rate limiter on **Redis** sorted sets with atomic per key enforcement
- Cut response latency **95%** by caching GET responses and API key lookups in **Redis**
- Offloaded request logging to a **Redis** buffer and worker, streamed live to a **WebSocket** dashboard

King's Gambit | *React, Django, WebRTC, Docker, PostgreSQL, Redis* | GitHub | Video Demo
- Shipped a full stack, room based chess platform using **React**, **Django**, and **PostgreSQL**
- Used **Django Channels** and **Redis** to implement WebSocket based real time gameplay
- Integrated **WebRTC** video chat using **PeerJS** for P2P communication to reduce server bandwidth
- Designed a multi-service architecture and containerized the application with **Docker Compose**

AutoTriage | *Python, FAISS, Gemini API, Ollama, Pydantic* | GitHub
- Built a terminal based **RAG** pipeline to route, classify and answer support tickets across 3 product domains
- Implemented **regex pre-routing** to bypass the LLM entirely for adversarial and out of scope tickets
- Enforced structured output with **Pydantic** and prevented prompt injection using **XML-sandboxed** inputs
- Supported Gemini 2.5 Flash and Qwen 2.5 via **Ollama** with defensive JSON parsing

Extracurricular Activities

Technical Writing
- Analyzed **CPython** source code to explain how lists use **dynamic C arrays** for performance | Article
- Explained **dictionary structure** in CPython detailing its **O(1) lookups** and insertion order | Article

- Ranked in the **top 10%** (132/1349) in **HackerRank Orchestrate** May 2026
- Selected for **JPMorgan Chase Code For Good** Hackathon 2025
- Solved **240+** Data Structures & Algorithms problems on LeetCode
- Initiated and manage a tech community with **450+** members for discussions on programming and tech trends

Technical Skills

Languages: Python, C, JavaScript, SQL
AI Engineering: RAG, FAISS, BM25, Whisper
Databases: PostgreSQL, Redis, MySQL, SQLite
Backend: FastAPI, Django, Flask, Django Channels
Frontend: React, HTML, CSS, Tailwind
Tools: Docker, Alembic, Pytest, Git, Razorpay, Supabase

Certifications

Harvard CS50x **Harvard CS50P** **Fundamentals of Backend**